

ABSTRACT OF THE DISCLOSURE

A spread spectrum meter reading system enables the use of high power frequency hopping spread spectrum (HPSS) transmissions at both the encoder transmitter and repeater levels of the meter reading system. A plurality of end point encoder transmitter devices are each connected to a utility meter and transmit high power FHSS signals containing at least metering data for the corresponding utility meter. A plurality of intermediate transceiver units that are fewer in number than the number of end point encoder transmitter devices both receives and retransmits the high power FHSS signals. A base station includes a receiver that receives the high power FHSS signals. Preferably, the base station can receive the high power FHSS signals from both the encoder transmitter devices and the intermediate transceiver units and the intermediate transceiver units aggregates metering data from multiple encoder transmitter devices prior to block retransmission of the metering data to the base station. Preferably, the high power FHSS signals are transmitted at a maximum hopping rate of at least one minute per hop to reduce power consumption and increase battery life of the devices.